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10/722,234	11/25/2003	David W. Herbage	A310429.1US	6684

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EXAMINER	
CLEMENT, MICHELLE RENEE	
ART UNIT	PAPER NUMBER
3641	

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Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 6/5/06 have been fully considered but they are not persuasive. In response to applicant's contention that the zero twist keyway and guide key of Finkelstein has a different purpose than the intended purpose of the current invention it is noted that it is the claimed **structure** must distinguish the present claims over that of the reference and that statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Therefore it is irrelevant as to **why** rotation is undesirable in Finkelstein, merely that Finkelstein teaches the claimed structure and that the structure has the ability to prevent axial movement is the pertinent teaching of Finkelstein. In response to applicant's argument that Grosso includes additional control systems not required by applicant's invention, it must be noted that Grosso

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discloses the elements claimed, the fact that it discloses additional structure not claimed is irrelevant.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the releasable decoy must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 44 and 46-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (US Patent # 4,662,265), Gassler et al. (US Patent # 4,681,014), Grosso (US Patent # 5,425,514), Finkelstein et al. (US Patent # 3,245,318). Becker et al. discloses a system for supporting a launch tube comprising a base (reference 10) that can be used for supporting the system, a launch tube (reference 5) having a central axis, the tube can be oriented in any desired position including substantially vertically on the base, means for rotating (reference 21) the launch tube about its axis while disposed on the base, the tube is housed in an outer tube (references 1, 2 and 9) affixed to the base, rotation of the launch tube sets the launch azimuth orientation of the projectile. Although Becker et al. does not expressly disclose the system comprising a decoy cartridge and protrusion and groove, Gassler et al. does. Gassler et al. teaches a missile alignment system comprising a countermeasure cartridge (as defined by applicant at page 54, countermeasure cartridge contains payload containing one or more appropriate decoys such as but not limited to infrared and/or radar-reflecting decoys, any device utilized to at least generally deceive distract, divert, lead, and/or lure away an incoming threat, as well as *any device utilized to destroy or deactivate such an incoming threat*), wherein at a least a portion of the counter measure cartridge is disposable within the launch tube (reference 6), wherein one of the countermeasure cartridge and launch tube comprises a protrusion (reference 32) and another of the countermeasure cartridge and launch tube comprises a groove (reference 10) complementarily configured to accommodate the protrusion and wherein a length of the

groove is substantially parallel to the reference axis at least when the countermeasure cartridge is disposed within the launch tube (i.e. means for providing a zero-twist rifling). Gassler et al. discloses that the purpose of the system is to eliminate rotational movement or rifling during on-loading of the missile. Becker et al. and Gassler et al. are analogous art because they are from the same field of endeavor: defense systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the alignment system as taught by Gassler et al. with the launcher of Becker et al. The suggestion/motivation for doing so would have been to obtain a launcher that had decreased rotational movement during on-loading of the missile in order to decrease cable winding and increase precision. Although neither Becker et al. nor Gassler et al. expressly disclose the protrusion and groove as a zero twist longitudinal guide to effect non-rotational axial movement throughout a substantial portion of the launch, Finkelstein et al. does. Finkelstein et al. teaches a launcher comprising a guide (reference 44) and a groove attached to the missile to prevent rotation of the projectile during the launching stage (column 3, lines 35-45). Becker et al., Gassler et al. and Finkelstein et al. are analogous art because they are from the same field of endeavor: missile launching. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the track and guide as taught by Finkelstein et al. with the system of Becker et al. and Gassler et al. The suggestion/motivation for doing so would have been to obtain a system that prevented rotation of the missile during the launching stage as suggested by Finkelstein et al. Although neither Becker et al., Gassler et al., nor Finkelstein et al. expressly disclose the decoy cartridge having canard means and the specific control means, Grosso does. Grosso teaches a controlled projectile (reference 110) for launch from a launch tube, the projectile (which can be used for

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counter measures) comprising a canard (reference 116) disposed thereon for adjustment of the pitch and trajectory of the cartridge during flight after launch from the tube. The cartridge further comprising internal control means (reference 120) preprogrammed for activation of a thruster and the canard. The projectile further including an onboard gyroscopic stabilization system to control at least one of roll, pitch and yaw of the projectile after launch, the gyroscopic stabilization system is linked to a database prior to launch whereby updated information is provided to the system. Gassler et al., Finkelstein et al., Becker et al., and Grosso are analogous art because they are from the same field of endeavor: defense systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the projectile as taught by Grosso with the launcher as taught by Gassler et al., Finkelstein et al. and Becker et al. The suggestion/motivation for doing so would have been to obtain a defense system that had a higher probability of hitting the target.

5. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al., Gassler et al., Grosso, and Finkelstein et al. as applied to claim 44 above, and further in view of Null (US Patent # 4,149,166). Although neither Becker et al., Gassler et al., Grosso, nor Finkelstein et al. expressly disclose the countermeasure system containing a releasable decoy, Null does. Null teaches a countermeasure system wherein the countermeasure missile contains releasable decoys. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the releasable decoys as taught by Null with the system as taught by Becker et al., Gassler et al., Grosso, and Finkelstein et al. The suggestion/motivation for doing so would have been to obtain a system that was effective for protection against Doppler attacks.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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MICHELLE CLEMENT  
PRIMARY EXAMINER